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09/739,682	12/20/2000	Hiroaki Nakamura	Q62095	3922

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SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

THOMPSON, JAMES A

ART UNIT PAPER NUMBER

2624

DATE MAILED: 07/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,682

Applicant(s)

NAKAMURA, HIROAKI

Examiner

James A Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-8 and 10-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Ogura (US Patent 6,314,198 B1).

Regarding claim 1: Ogura discloses an image processing method comprising the step of preliminarily setting a plurality of basic compression characteristics or basic expansion characteristics of image information (column 31, lines 34-38 of Ogura), which include the type of apparatus (column 31, lines 39-40 of Ogura), the type of photographing portion (column 31, lines 40-42 of Ogura), the type of output device (column 31, lines 42-44 of Ogura), and the characteristic amount (column 31, lines 44-46 of Ogura). The type of apparatus (column 28, lines 27-31 of Ogura), the type of

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photographing portion (column 28, lines 52-56 of Ogura), the type of output device (column 29, lines 6-12 of Ogura), and a characteristic amount (column 31, lines 7-14 of Ogura) are initially set by the system, and are used to determine the compression of the dynamic range of the gradation (column 31, lines 34-46 of Ogura).

Ogura further discloses selecting one or more basic compression characteristics or basic expansion characteristics from said plurality of basic compression characteristics or basic expansion characteristics, particularly the type of apparatus (column 28, lines 12-16 of Ogura), the type of photographing portion (column 28, lines 38-41 of Ogura), and the type of output device (column 28, lines 64-67 of Ogura).

Ogura further discloses compressing or expanding gradation of said image information (column 31, lines 33-38 of Ogura) using the thus selected one or more basic compression characteristics or basic expansion characteristics (column 31, lines 38-46 of Ogura).

Regarding claim 2: Ogura discloses that said plurality of basic compression characteristics or basic expansion characteristics are preliminarily set in accordance with at least one of an original type (column 28, lines 52-56 of Ogura), an original size and an analysis result (characteristic amount) of said image information (column 31, lines 7-14 of Ogura). The type of photographing portion is originally set automatically based on a discrimination result (column 28, lines 52-56 of Ogura). The characteristic amount is an amount that is the result of an analysis and calculation (column 31, lines 7-14 of Ogura) and is set and sent to the image processing portion (column 31, lines 20-23 of Ogura).

Regarding claim 3: Ogura discloses that said one or more basic compression characteristics or a plurality of basic expansion characteristics are selected (column 31, lines 33-38 of Ogura) in accordance with at least one of an original type (column 28, lines 32-37 and column 31, lines 40-42 of Ogura), an original size and an analysis result (characteristic amount) (column 31, lines 7-14 and lines 44-46 of Ogura) of said image information. Gradation compression is set (column 31, lines 33-38 of Ogura) based on the type of photographing portion (column 31, lines 40-42 of Ogura) and a characteristic amount (column 31, lines 44-46 of Ogura), which is an amount that is the result of an analysis and calculation (column 31, lines 7-14 of Ogura).

Regarding claim 5: Ogura discloses that said one or more basic compression characteristics or basic expansion characteristics are selected by a manual operation (column 28, lines 13-16 and lines 38-41 of Ogura).

Regarding claim 6: Ogura discloses that said basic compression characteristics or basic expansion characteristics (type of apparatus, type of photographing portion, type of output device, characteristic amount) are provided as a parameter or a look-up table (column 31, lines 38-45 of Ogura). The basic compression characteristics are provided as parameters (column 31, lines 38-45 of Ogura).

Regarding claim 7: Ogura discloses the step of analyzing said image information, said information including the type of apparatus (column 28, lines 25-31 of Ogura), the type of photographing portion (column 28, lines 50-56 of Ogura), the type of output device (column 29, lines 5-11 of Ogura) and the characteristic amount (column 31, lines 15-23 of Ogura). All of the information corresponding to these characteristics

must be analyzed in some form in order for the system to automatically set said characteristics.

Ogura further discloses that the step of compressing or expanding gradation of said image information using said selected one or more basic compression characteristics or basic expansion characteristics comprises the steps of setting a processing condition (column 31, lines 38-46 of Ogura) for compressing or expanding the gradation of said image information (column 31, lines 33-38 of Ogura) using said selected one or more basic compression characteristics or basic expansion characteristics in accordance with said analysis result (column 31, lines 38-46 of Ogura); and processing said image information in accordance with the thus set processing condition (column 31, lines 36-38 of Ogura). The optimum density and/or gradation is achieved for the image area corresponding to the photosensor (column 31, lines 36-38 of Ogura), thus requiring the processing of the image, based on the characteristics input to said image processing portion (column 31, lines 38-46 of Ogura). The characteristics input into said image processing apparatus must be analyzed before the dynamic range compression is performed since all of said characteristics are needed to determine said compression (column 31, lines 38-46 of Ogura).

Regarding claim 8: Ogura discloses that the step of compressing or expanding the gradation of said image information using said selected one or more basic compression characteristics or basic expansion characteristics comprises the steps of setting a processing condition (column 31, lines 38-46 of Ogura) for compressing or expanding the gradation of said image information (column 31, lines 33-38 of Ogura)

using said selected one or more basic compression characteristics or basic expansion characteristics (column 31, lines 38-46 of Ogura) by a manual operation (column 28; lines 12-16, lines 37-41, and lines 63-67 of Ogura); and processing said image information in accordance with the thus set processing condition (column 31, lines 36-38 of Ogura). The processing condition for determining the dynamic range (column 31, lines 33-38 of Ogura) is set based on the characteristics (column 31, lines 38-46 of Ogura) which are set manually, such as the type of apparatus (column 28, lines 12-16 of Ogura), the type of photographing portion (column 28, lines 37-41 of Ogura), and the type of output device (column 28, lines 63-67 of Ogura).

Regarding claim 10: Ogura discloses an image processing method comprising the step of preliminarily setting a plurality of basic compression characteristics or basic expansion characteristics (column 31, lines 34-38 of Ogura), which include the type of apparatus (column 31, lines 39-40 of Ogura), the type of photographing portion (column 31, lines 40-42 of Ogura), the type of output device (column 31, lines 42-44 of Ogura), and the characteristic amount (column 31, lines 44-46 of Ogura). The type of apparatus (column 28, lines 27-31 of Ogura), the type of photographing portion (column 28, lines 52-56 of Ogura), the type of output device (column 29, lines 6-12 of Ogura), and a characteristic amount (column 31, lines 7-14 of Ogura) are initially set by the system, and are used to determine the compression of the dynamic range of the gradation (column 31, lines 34-46 of Ogura).

Ogura further discloses selecting one or more basic compression characteristics or one or more basic expansion characteristics from said plurality of basic compression

characteristics or said plurality of basic expansion characteristics, particularly the type of apparatus (column 28, lines 12-16 of Ogura), the type of photographing portion (column 28, lines 38-41 of Ogura), and the type of output device (column 28, lines 64-67 of Ogura).

Ogura further discloses analyzing said image information, said information including the type of apparatus (column 28, lines 25-31 of Ogura), the type of photographing portion (column 28, lines 50-56 of Ogura), the type of output device (column 29, lines 5-11 of Ogura) and the characteristic amount (column 31, lines 15-23 of Ogura). All of the information corresponding to these characteristics must be analyzed in some form in order for the system to automatically set said characteristics.

Ogura further discloses setting a processing condition (column 31, lines 38-46 of Ogura) for compressing or expanding gradation of said image information (column 31, lines 33-38 of Ogura) using the thus selected one or more basic compression characteristics or the thus selected one or more basic expansion characteristics in accordance with said analysis result obtained by thus analyzing the image information (column 31, lines 38-46 of Ogura); and processing said image information in accordance with the thus set processing condition (column 31, lines 36-38 of Ogura). The optimum density and/or gradation is achieved for the image area corresponding to the photosensor (column 31, lines 36-38 of Ogura), thus requiring the processing of the image, based on the characteristics input to said image processing portion (column 31, lines 38-46 of Ogura). The characteristics input into said image processing apparatus must be analyzed before the dynamic range compression is performed since all of said

characteristics are needed to determine said compression (column 31, lines 38-46 of Ogura).

Regarding claim 11: Ogura discloses an image processing method comprising the step of preliminarily setting a plurality of basic compression characteristics or basic expansion characteristics (column 31, lines 34-38 of Ogura), which include the type of apparatus (column 31, lines 39-40 of Ogura), the type of photographing portion (column 31, lines 40-42 of Ogura), the type of output device (column 31, lines 42-44 of Ogura), and the characteristic amount (column 31, lines 44-46 of Ogura. The type of apparatus (column 28, lines 27-31 of Ogura), the type of photographing portion (column 28, lines 52-56 of Ogura), the type of output device (column 29, lines 6-12 of Ogura), and a characteristic amount (column 31, lines 7-14 of Ogura) are initially set by the system, and are used to determine the compression of the dynamic range of the gradation (column 31, lines 34-46 of Ogura).

Ogura further discloses selecting one or more basic compression characteristics or one or more basic expansion characteristics from said plurality of basic compression characteristics or said plurality of basic expansion characteristics, particularly the type of apparatus (column 28, lines 12-16 of Ogura), the type of photographing portion (column 28, lines 38-41 of Ogura), and the type of output device (column 28, lines 64-67 of Ogura).

Ogura further discloses setting a processing condition (column 31, lines 38-46 of Ogura) for compressing or expanding gradation of image information (column 31, lines 33-38 of Ogura) using the thus selected one or more basic compression characteristics

or the thus selected one or more basic expansion characteristics (column 31, lines 38-46 of Ogura) by a manual operation (column 28; lines 12-16, lines 37-41, and lines 63-67 of Ogura); and processing said image information in accordance with the thus set processing condition (column 31, lines 36-38 of Ogura). The processing condition for determining the dynamic range (column 31, lines 33-38 of Ogura) is set based on the characteristics (column 31, lines 38-46 of Ogura) which are set manually, such as the type of apparatus (column 28, lines 12-16 of Ogura), the type of photographing portion (column 28, lines 37-41 of Ogura), and the type of output device (column 28, lines 63-67 of Ogura).

Regarding claim 12: Ogura discloses an image processing apparatus (figure 20 of Ogura) comprising a selecting device (figure 20(313) of Ogura) for selecting one or more basic compression characteristics or basic expansion characteristics (column 28, lines 32-37 of Ogura) from a preliminarily set of a plurality of basic compression characteristics or basic expansion characteristics (column 28, lines 35-37 of Ogura) for use in compressing or expanding gradation of image information supplied by an image information supply source (column 31, lines 40-42 of Ogura). The discriminating portion (figure 20(313) of Ogura) selects the kind of portion indicated by the image data (column 28, lines 32-34 of Ogura) and outputs said kind of portion to the image processing portion (column 28, lines 35-37 of Ogura). Since the kind of portion can be set manually with a button or a dial (column 28, lines 37-41 of Ogura), then there is a preliminary set of portion kinds that can be selected from. Otherwise, the operator has nothing to select between.

Said apparatus further comprises an image processing device (figure 20(317) of Ogura) for compressing or expanding the gradation of said image information (column 31, lines 33-38 of Ogura) using said one or more basic compression characteristics or basic expansion characteristics selected by said selecting device (column 31, lines 40-42 of Ogura).

Regarding claim 13: Ogura discloses a setting section (figure 20(313(part)) of Ogura) for analyzing the image information and setting a processing condition (column 28, lines 48-56 of Ogura) for compressing or expanding the gradation of said image information using said one or more basic compression characteristics or basic expansion characteristics (column 31, lines 33-38 of Ogura) selected by said selecting device in accordance with an analyzing result obtained by thus analyzing the image information (column 28, lines 48-56 of Ogura), wherein said image processing device processes said image information in accordance with the processing condition set by said setting section (column 31, lines 40-42 of Ogura). Since the selecting device (figure 20(313) of Ogura) analyzes the image information and sets a processing condition (column 28, lines 48-56 of Ogura), then a setting section must be included as part of said selecting device. Said setting section is the portion of the circuitry of said selecting device that performs said analyzing and said setting.

Regarding claim 14: Ogura discloses a setting section (figure 20(313(part)) for setting a processing condition (column 28, lines 37-41 of Ogura) for compressing or expanding the gradation of said image information by a manual operation (column 31, lines 33-38 of Ogura) using said one or more basic compression characteristics or basic

expansion characteristics selected by said selecting device (column 28, lines 37-41 of Ogura), wherein said image processing device processes said image information in accordance with the processing condition set by said setting section (column 31, lines 40-42 of Ogura). Since the selecting device (figure 20(313) of Ogura) analyzes the image information and sets a processing condition (column 28, lines 48-56 of Ogura), then a setting section must be included as part of said selecting device. Said setting section is the portion of the circuitry of said selecting device that performs said analyzing and said setting.

Regarding claim 15: Ogura discloses that said selecting device selects said one or more basic compression characteristic or basic expansion characteristics in accordance with at least one of an original type of an image as an image information source (column 28, lines 48-52 of Ogura), an original size of the image as the image information source and an analysis result of said image information (column 28, lines 52-56 of Ogura).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogura (US Patent 6,314,198 B1) in view of well-known prior art.

Regarding claim 4: Ogura discloses that said original type is some form of film (column 28, lines 59-61 and column 31, lines 64-65 of Ogura).

Ogura does not disclose expressly that said original type is at least one of a negative film, a reversal film, and a black-and-white film, and wherein said original size is at least one of a 135 size, a 240 size and a 120/220 size.

Official Notice is taken that the negative film, reversal film, and black-and white film types and the 135, 240 and 120/220 film sizes are old, well-known and expected in the art. It would have been obvious to one of ordinary skill in the art to use as the original type at least one of a negative film, a reversal film, and a black-and-white film since negative film is a standard format used to process film images, a reversal film is a standard format for direct projection and viewing of film images, and black-and-white film is gives clear images based on grayscale levels, which is useful in medical diagnoses when a radiographic system, such as taught by Ogura, is used. Further, it would have been obvious to one of ordinary skill in the art to use as the original size one of a 135 size, a 240 size, and a 120/220 size since said sizes are common sizes that can be used to produce printed images.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogura (US Patent 6,314,198 B1) in view of Sasanuma (US Patent 5,937,087).

Regarding claim 9: Ogura does not disclose expressly that said processing condition is set as a look-up table.

Sasanuma discloses setting a gradation curve characteristic in a look-up table (column 6, lines 65-67 of Sasanuma).

Ogura and Sasanuma are combinable because they are from the same field of endeavor, namely image data processing and gradation conversion. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a look-up table to store a processing condition for the compression of the gradation curve. The motivation for doing so would have been that a look-up table is a means by which a computer can load and switch values (column 6, lines 51-52 of Sasanuma). Therefore, it would have been obvious to combine Sasanuma with Ogura to obtain the invention as specified in claim 9.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hideya Takeo, US Patent 5,796,870, 18 August 1998.

Yoshihiro Kishida, US Patent 5,287,418, 15 February 1994.

Teroyushi Makino, US Patent 5,845,869, 8 December 1998.

Yasunobu Sakaguchi, US Patent 5,995,201, 30 November 1999.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Thompson whose telephone number is 703-305-6329. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
July 21, 2004



THOMAS D.
~~LEE~~ LEE
PRIMARY EXAMINER